

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/826,308
Attorney Docket No.: Q63977

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A program for enabling a computer to perform a process for reading and outputting printing data, which controls a printer, wherein said program enables the computer to implement:

a process for dividing printing data, which controls printing of the printer, into plural fragments of data, adding information for discriminating the fragments of data to the respective fragments of data, and recording them-said plurality of fragments of data with the respective added information as a plurality of files;

a process for creating data for each of said plurality of files, which include-said data comprising information for specifying said-a respective file from said plurality of files, and recording it-said specifying information as a print spooling file separately from said respective file;

a process for reading said print spooling file to refer to said information for specifying the file;

a process for reading the specified file to output printing data included in said respective file; and

a process for deleting a file including outputted printing data.

2. (currently amended): A program for enabling a computer to perform a printing process, wherein said program enables the computer to implement:

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a process for creating printing data, which controls a printer, in accordance with a printing instruction;

a process for determining whether or not a print processor ~~capable of using in the computer~~ can control transfer to a printer in accordance with the printing data created by the computer;

a process for dividing the created printing data into plural fragments of data and adding information for discriminating the fragments of data to the respective fragments of data and recording so as to record them the plurality of fragments of data with respective added information as a plurality of files when ~~it is determined that~~ the determining process determines that the print processor can control transfer to the printer in accordance with the created printing data ~~created by the computer~~; and

a process for creating data, ~~which includes~~ said data comprising information for specifying each of said plurality of files, said created data with the specifying information is stored separately from said plurality of files.

3. (currently amended): The program according to claim Claim-2, wherein said data with the specifying information, which includes information for specifying the file, includes comprises information indicating that the data is created by the process according to said program.

4. (original): The program according to Claim 2, wherein said program enables the computer further to implement:

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a process for enabling to receive an instruction of plural sets of printing; and
a process for making said data, which include information for specifying the file, include
information concerning the instruction of plural sets of printing, when said instruction of plural
sets of printing is received.

5. (currently amended): A method of a printing process in a computer which creates
printing data, comprising:

a step of receiving a printing instruction;
a step of determining whether or not a print processor ~~capable of using in the computer~~
can control transfer to a printer in accordance with printing data created by the computer;
a step of dividing the created printing data into plural fragments of data and adding
information for discriminating the fragments of data to the respective fragments of data ~~so as to~~
~~and recording record them~~ ~~the fragments of data~~ as a plurality of files when ~~it is determined~~ that
the print processor can control transfer to the printer in accordance with printing data created by
the computer; and
a step of creating data for each of said plurality of files, which include said data
comprising information for specifying said a respective file from the plurality of files, said data
is being stored separately from said plurality of files.

6. (currently amended): A computer receiving a printing instruction to create printing
data for controlling a printer, comprising:

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means for dividing the created printing data into plural fragments of data and adding information for discriminating the fragments of data to the respective fragments of data so as to and recording record them- the fragments of data with respective added information as a plurality of files; and

means for creating data for each of said plurality of files, said data comprising which include information for specifying said a respective file from said plurality of file, said data being stored separately from said plurality of files.

7. (currently amended): A program for enabling a computer to perform a process for reading and outputting printing data, which controls a printer, wherein said program enables the computer to implement:

a determining process for determining whether or not a print spooling file includes information for specifying one file among plural files which includes that include printing data, said information being stored separately from the plural files;

a process for reading said print spooling file to refer to information for specifying said file when it is a determined determination is made -that the print spooling file includes the information for specifying athe file;

a process for reading the specified file to output printing data included in the file; and

a process for deleting a file including the outputted printing data.

8. (currently amended): The program according to Claim 7, wherein said program enables the computer further to implement:

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a process for determining whether or not the print spooling file includes information concerning an instruction of plural sets of printing;

a process for reading the specified file to create and record a file comprising printing data in a unit of page;

instead of a process for reading the specified file to output printing data included in the file when it is determined that the print spooling file includes information concerning an instruction of plural sets of printing; and

a process for referring to said file comprising printing data in a unit of page in accordance with an instruction of plural sets of printing to output the printing data in a unit of page plural times.

9. (currently amended): A method of transferring printing data in a computer, comprising:

a step of determining whether or not the print spooling file includes information for specifying one file among plural files that which include printing data, said information being stored separately from the plural files;

a step of reading the print spooling file to refer to the information for specifying the file when it is a determined determination is made that said print spooling file includes the information for specifying said file;

a step of reading the specified file to output printing data included in the file; and

a step of deleting the file including the outputted printing data.

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10. (currently amended): A computer outputting printing data to a printer, comprising:
means for reading the print spooling file, which includes information for specifying one
file among plural files ~~which that~~ include printing data, said information being stored separately
from the plural files;

means for referring to information for specifying said file;

means for reading the specified data to output printing data included in the file; and

means for deleting the file including the outputted printing data.

11. (currently amended): A program for enabling a computer to perform a printing
process, wherein said program enables the computer to implement:

a process for creating printing data, which controls a printer, in accordance with a
printing instruction from a computer operator;

a process for determining whether or not a print processor ~~capable of using in the~~
~~computer can control~~ transfer to a printer in accordance with printing data created by the
computer;

a process for creating a file recording a command for controlling the printer when it is
determined that the print processor can control transfer to the printer in accordance with printing
data created by the computer; and

a process for creating data, which include information for specifying said file, separately
from said file.

12. (original): The program according to Claim 11, wherein

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said command for controlling the printer includes a cancellation command for stopping printing.

13. (original): A computer creating printing data, which controls a printer, in accordance with a printing instruction from a computer operator, comprising:

means for creating a file, into which a command for controlling the printer is recorded; and

means for creating data, which include information for specifying said file, separately from said file.

14. (currently amended): A program for enabling a computer to perform a process for reading and outputting printing data controlling a printer, wherein said program comprising:

a process for reading a print spooling file, which includes information for specifying one file among plural files ~~which that~~ include printing data, and information for specifying a file into which a command for controlling the printer is recorded, and controlling transfer to the printer;

a process for reading a first file including the printing data ~~(a first file)~~, which is specified by said print spooling file stored separately from the first file, ~~to and output-outputting~~ the printing data from the first file;

a process for determining during the reading of said first file whether a second file, which is specified by said print spooling file and into which a command for controlling a printer is recorded, ~~(a second file)~~ has been updated or not; and

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a process for reading said second file when it is determined a determination is made that said second file has been updated to output a command for controlling the printer.

15. (original): The program according to Claim 14, wherein said command for controlling the printer includes a cancellation command for stopping printing.

16. (currently amended): A computer for outputting printing data to a printer, comprising:

means for creating a first file, into which a command for controlling the printer is recorded;

means for creating a second file including comprising printing data;

means for reading said second file including printing data to output the printing data;

means for determining during the reading of said second file including the printing data whether said first file, into which a command for controlling the printer is recorded, has been updated or not; and

means for reading said first file, into which a command for controlling the printer is recorded, when it is determined a determination is made that said first file, into which a command for controlling the printer is recorded, has been updated, to and output outputting the command for controlling the printer.

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17. (original): A storing medium readable for a computer, into which the program according to any one of Claims 1, 2, 3, 4, 7, 8, 11, 12, 14 and 15 is recorded.

18. (new): A computer system for printing data, comprising:

a computer comprising:

a printer driver dividing print data into a plurality of fragments and storing each of the plurality of fragments into a respective sub-file, storing a control file comprising print control commands, and generating a sub-file name for each sub-file and a print control name for the print control file;

a spooler receiving the generated sub-file names and the print control name transmitted by the printer driver and creating a spool file by storing therein a plurality of sub-file names, each identifying the stored respective sub-file, and by storing therein the print control name identifying the print control file;

a print processor accesses the spooling file to read the stored sub-file names in a predetermined order and to read the print control name, and

a printer receiving in a predetermined order each of the read stored sub-files and the print control file,

wherein the print processor retrieves in a predetermined order each of a plurality of sub-files and each of a plurality of print commands based on the spool file and transmits to the printer the retrieved sub-file and print command while reading next sub-file name from the spool file.

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19. (new): The computer system for printing data according to claim 18, wherein each of the plurality of sub-files comprises a plurality of packets, each of the plurality of packets comprises packet code, packet identification, and packet data.